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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,119	09/30/2003	Atsushi Shinozaki	KAW-0046	4968
23413	7590	12/14/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			KIANNI, KAVEH C	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,119

Applicant(s)

SHINOZAKI ET AL.

Examiner

K. Cyrus Kianni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8 is/are rejected.
- 7) ☒ Claim(s) 1,2,4-6 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. As stated by applicant in the background section of the specification, see page 2, 2nd parag., the drawing of figure 5 is conventional. Appropriate correction is required.

Abstract

2. Abstract is objected to because of the following informalities: In the 4th line the word 'liner' is misspelled and it should be linear. Appropriate correction is required.

Specification

3. The disclosure is objected to because of the following informalities: at least in pages, 8, 1st and 2nd parag. and page 2, line 16, the element 3 has three different meanings. Appropriate correction is required.

Claim Objections

4. Claims 1, 2 and 4-6, 9-11, are objected to because of the following informalities:

the term "is minimized" in the last line of claim 2 is a relative term which renders the claim indefinite. The term "is minimized" is not defined by the claim, and one of ordinary skill in the art may not be reasonably apprised of the scope of the invention. The term "is minimized" needs to be defined/specified in the claim as relative to what dimension/degree the offset distance is minimized;

in the third line of the claims the word 'liner' is misspelled and it should be linear;

in at least the 10th lines on both claims 1 and 2 'said base plates' is inconsistent with preceding limitations of 'base plate in the claims, lines 3 and 5 as well as in the last line of claim 2; furthermore, in the dependent claims such as claims 3 and 8 this limitation is referred to as 'said base palates'.

In claim 2, said 'connection point' should be 'connection points' similar to precedent limitations in the base claim;

In claims 4-6 and 9-11 the limitation 'said connection concavity' as well as the limitation 'said connection part' in claims 6 and 10 have no antecedent basis.

Appropriate corrections are required.

Allowable Subject Matter

5. Claims 4-7 and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if appropriate corrections, as mentioned above, are made and rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims once the corrections are made allowable, since the prior art of the record, alone or in combination, in combination with the rest of the

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limitations of the base claim does not teach their perspective limitations (of dependent claims).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 1-3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takabayashi et al. (US 6522809).

Regarding claims 1 and 2, Takabayashi teaches an optical fiber grating part (shown in at least fig. 5B) comprising; an elongated pedestal 7, and a base plate 4 installed on said pedestal 7, and having a different coefficient of thermal expansion from

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said pedestal 7 (see at least col. 14, 4th parag.), and an optical fiber 1 passing through said pedestal 7, and connected to connection points 6 installed on said pedestal 7 or said base plate located apart from each other in the longitudinal direction of said pedestal (see figures 15b, item connection points 6 and col. 10, lines 59-61) and having an optical fiber grating 2 located between said connection points 6, wherein a predetermined tensile force 8 is added to said optical fiber grating 2, and said pedestal and said base plates thermally expand or thermally shrink independently in the longitudinal direction of said pedestal 7 (see col. 14, 5th parag.), and an offset distance between said connection point and a contact surface of said pedestal and said base plate is minimized (see at least fig. 15b, item offset distance L2, also t2; see col. 16, last parag.-col. 17, 2nd parag.); and an extension line of an axis of said optical fiber 1 joining said connection points 6 passes through a contact surface 119 between said pedestal 7 and said base plate (see fig. 45, item fiber 1 passing through 119 contact/material surface between pedestal and base plate(s)).

However, Takabayashi does not specifically teach wherein the above coefficient of thermal expansion is 'coefficient of linear thermal expansion'. However, as shown at least in fig. 16, the bragg wavelengths λ_{1-n} linearly change with applied voltage in which. Thus, it is obvious/well-known to those of ordinary skill in the art when the invention was made that linear change in bragg wavelengths λ_{1-n} as function of applied voltage/heat is/known-as related to coefficient of linear thermal expansion, since such linearity would allow controlling of the bragg wavelength more easily than in the prior art after production (see col. 4, 2nd parag.).

Regarding claims 3 and 8, Takabayashi further teaches wherein a pair of said base plates are installed apart from each other in the longitudinal direction of said pedestal and each said base plate has said connection points respectively (shown at least in fig. 15b, each plate 4 has connection points 6);

Citation of Relevant Prior Art

8. Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

Fujikura et al. JP2000-347047 Teaches at least claims 1-2 (the examiner may provide the translation of this reference--in the next office action—for possible rejecting of all relevant claims, depending on how the applicant would amend the claims.)

Bookbinder et al. 6603900 teaches at least independent claims

Jin et al. 6108470 relevant to claims

Fleming et al. 5694503 teach at least independent claims

Albert 20030081925 teach at least independent claims (fig. 2)

Albert 20030108286 teach at least independent claims (fig. 2)

Albert 20040156587 teach at least independent claims

Albert 6807341 teach at least independent claims

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MacDougall 6529671

Kashihara et al. 20010006570

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for formal communications intended for entry)

or:

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.



K. Cyrus Kianni
Patent Examiner
Group Art Unit 2883

December 9, 2004